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## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

- 5 (i) APPLICANT:  
(A) NAME: Margaret Ann Johns  
(B) STREET:  
(C) CITY:  
(D) STATE:  
10 (E) COUNTRY:  
(F) POSTAL CODE (ZIP):  
(G) TELEPHONE:  
(H) TELEFAX:
- 15 APPLICANT:  
(A) NAME: Brian Jay Moldover  
(B) STREET:  
(C) CITY:  
(D) STATE:  
20 (E) COUNTRY:  
(F) POSTAL CODE (ZIP):  
(G) TELEPHONE:  
(H) TELEFAX:
- 25 APPLICANT:  
(A) NAME: James David Offord  
(B) STREET:  
(C) CITY:  
(D) STATE:  
30 (E) COUNTRY:  
(F) POSTAL CODE (ZIP):  
(G) TELEPHONE:  
(H) TELEFAX:
- 35 (ii) TITLE OF INVENTION: Alpha-2/Delta Gene  
(iii) NUMBER OF SEQUENCES: 49  
(iv) COMPUTER READABLE FORM:  
40 (A) MEDIUM TYPE: Floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
- 45 (2) INFORMATION FOR SEQ ID NO: 1:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
50 (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
55 (D) OTHER INFORMATION:  $\alpha 2\delta$ -B  
(iii) MOLECULE TYPE: cDNA

"00220" 25928260

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

CGGGCAGCGCAGCCCGCAGAGGCGCTGCGGGCCCGTGCAGCCCCGGAGGCCCTCGCGGAGAAGGCG  
GCGGCGGAGGAGAGGCGGAGTTACCGCCCGCCGCGCCGCCCCCAACCCCGCCGCGCGCGCGC  
5 CGCCGCCACTGCCCCCCTCCCCGCGGCGCCGCATCTTGAATGGAAACATGGCGGTGCCGGCTCGG  
ACCTGCGGCGCCTCTCGGCCCCGGCCAGCGCGGACTGCGCGCCCCCTGGCCCGGCTGCGGCCCCAC  
CCTGGCCCCGGCACCCGGCGCCGACGTCCGGGCCCCCGCGCCCGCTGTGGCTGCTGCCGCTT  
CTACCGCTGCTCGCCGCCCCCGCGCCTCTGCCTACAGCTTCCCCCAGCAGCACACGATGCAGCAC  
10 TGGGCCCCGGCGTCTGGAGCAGGAGGTGACGGCGTGATGCGGATTTTGGAGGCGTCCAGCAGCTC  
CGTGAGATTTACAAGGACAACCGGAACCTGTTGAGGTACAGGAGAATGAGCCTCAGAAGTTGGTG  
GAGAAGGTGGCAGGGGACATTGAGAGCCTTCTGGACAGGAAGGTGCAGGCCCTGAAGAGACTGGCT  
GATGCTGCAGAGAACTTCCAGAAAGCACACCGCTGGCAGGACAACATCAAGGAGGAAGACATCGTG  
TACTATGACGCCAAGGCTGACGCTGAGCTGGACGACCTGAGAGTGAGGATGTGGAAAGGGGGTCT  
AAGGCCAGCACCCCTAAGGCTGGACTTCATCGAGGACCCAACTTCAAGAACAAAGGTCAACTATTCA  
15 TACGCGGCTGTACAGATCCCTACGGACATCTACAAAGGCTCCACTGTCATCCTCAATGAGCTCAAC  
TGGACAGAGGCCCTGGAGAATGTGTTTATGAAACCGCAGACAAGACCCACACTGCTGTGGCAG  
GTCTTCGGCAGCGCCACAGGAGTCACTCGCTACTACCCGCGCCACCCCGTGGCGAGCCCCAAGAAG  
ATCGACCTGTACGATGTCCGAAGGAGACCCCTGGTATATCCAGGGGGCCTCGTACCCAAAGACATG  
GTCATCATCGTGGATGTGAGTGGCAGTGTGAGCGGCCCTGACCCTGAAGCTGATGAAGACATCTGTC  
20 TGGCAGATGCTGGACACGCTGTCTGATGATGACTATGTGAATGTGGCCTCGTTCAACGAGAAGGCA  
CAGCCTGTGTGCTTACACACCTGGTGCAGGCCAATGTGCGCAACAAGAAGGTGTTCAAGGAA  
GCTGTGCAGGGCATGGTGGCCAAGGGCACACAGGCTACAAGGCCGGCTTTGAGTATGCCTTTGAC  
CAGCTGCAGAACTCCAACATCACTCGGGCCAAGTGAACAAGATGATCATGATGTTACGGATGGT  
GGTGAGGACCGCGTGCAGGACGCTTTGAGAAGTACAATTGGCCAAACCGGACGGTGCCTGCTTT  
25 ACTTTCTCCGTGGGGCAGCATAACTATGACGTACACCGCTGCAGTGGATGGCTGTGCCAACA  
GGCTACTATTTTGAATCCCTTCCATCGGAGCCATCCGCATCAACACACAGGAATATCTAGATGTG  
TTGGGACAGGCCCATGGTGCTGGCAGGCAAGGAGGCCAAGCAGGTTCAAGTGGACCAACGTGTATGAG  
GATGCACTGGGACTGGGGTTGGTGGTAACAGGGACCTCCCTGTTTTCAACCTGACACAGGATGGC  
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30 AAGAGGCTGACCCCAACTACACGCTTGGAGCCAACGGCTATGTGTTGCCATTGACCTGAACGGC  
TACGTGTTGCTGCACCCCAATCTCAAGCCCCAGACCACCAACTTCCGGGAGCCTGTGACTCTGGAC  
TTCCTGGATGCGGAGCTAGAGGATGAGAACAAGGAAGAGATCCGTGCGGAGCATGATTGATGGCAAC  
AAGGGCCACAAGCAGATCAGAACGTTGGTCAAGTCCCTGGATGAGAGGTACATGAGGTGACAG  
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35 AGCACCCTTACCTCCAAGCCAATCTCAGTGACCAGATCCTGCAGGTCAAGTATTTTGAAGTCTCTG  
CTCCCCAGCAGCTTTGAGTCTGAAGGACACGTTTTTATTGCTCCCAGAGAGTACTGCAAGGACCTG  
AATGCCCTCAGACAACAACACCGAGTTCTGAAAACTTTATTGAGCTCATGGAGAAAGTGACTCCA  
GACTCCAAGCAGTGCAACAACCTTCTTCTGCACAACCTGATCTTGGACACGGGCATCACGCAGCAG  
CTGGTAGAGCGTGTGTGGAGGGACCAGGATCTCAACACGTACAGCCTACTGGCCGTGTTTCGCTGCC  
40 ACAGACGGTGGCATCACCCGAGTCTTCCCCAACAAGGCAGCTGAGGACTGGACAGAGAACCCTGAG  
CCCTTCAATGCCAGCTTCTACCGCCGACGCTGGATAACCACGGTTATGCTTCAAGCCCCACAC  
CAGGATGCCCTGTTAAGGCCGCTGGAGCTGGAGAATGACACTGTGGGCATCCTCGTCAGCAGCT  
GTGGAGCTCAGCCTAGGCAGGCGCACACTGAGGCCAGCAGTGGTGGGCGTCAAGCTGGACCTAGAG  
GCTTGGGCTGAGAAGTTCAAGGTGCTAGCCAGCAACCGTACCCACCAAGACCAGCCTCAGAAGTGC  
45 GGCCCCAACAGCCACTGTGAGATGGACTGCGAGGTTAACAATGAGGACTTACTCTGTGCTCCTCATT  
GATGATGGAGGATTCTGGTGCTGTCAAACAGAACCATCAGTGGGACCAGGTGGGCAGGTTCTTC  
AGTGAGGTGGATGCCAACCTGATGCTGGCACTCTACAATAACTCCTTCTACACCCGCAAGGAGTCC  
TATGACTATCAGGCAGCCTGTGCCCCCTCAGCCCCCTGGCAACCTGGGTGCTGCACCCCGGGGTGTC  
TTTGTGCCACCGTTGCAGATTTCTTAACTGGCCTGGTGGACCTCTGCTGCCGCTGGTCCCTG  
50 TTCCAGCAGCTTCTTACGGCCTCATCTACCACAGCTGGTTCCAAGCAGACCCCGCGGAGGCCGAG  
GGGAGCCCCGAGACGCGGAGAGCAGCTGCGTCAATGAAACAGACCCAGTACTACTTCGGTCCGGTA  
AACGCCCTCTACAACGCCATCATCGACTGCGGAAACTGCTCCAGGCTGTTCCACGCGCAGAGACTG  
ACCAACCAATCTTCTCTTTGTGGTGGCCGAGAAGCCGCTGTGCAGCCAGTGCGAGGCTGGCCGG  
CTGCTGCAGAAGGAGACGCACTGCCAGCGGACGGCCCCGAGCAGTGTGAGCTAGTGACAGAGACCG  
55 CGATACCGGAGAGGCCCCGACATCTGCTTCACTACAACGCGACAGAAGATACCTCAGACTGTGGC  
CGCGGGGCTCCTTCCCGCGCTCGTGGGCGTCTGGTCTCCCTGCAACTGCTGCTCCTCCTGGGC  
CTGCCGCCCCGGCCGACGCTCAAGTCTCTCCACGCCTCTCGCCGCTCTGAGCACCTGCCCC  
ACCCACCTCCACTCCACCTCACCCGGCCTCTTCGCTTTCCACCTCCTGCCCCACACTCCCC  
GCCTTAGAGCCTCGTCCCTCCCTCACTGAAGGACCTGAGCTGGCCAGGCCCTGAGAGTCTGGTCTG

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CGCCTTGGGATGGGGAGTCCCAAAGCGGGACGCCGAGGTGTTGGCACCCAAATCACATCTCACC  
TCCGAAGTGTTCAGTGTCCCCAGACCTTCTTGCCTGCTGGGGCTCCCCCAGTGGGATGGGACAG  
GGAGGCCACACGCACTGGTGCCAAAACAGGCCCTCTGCTGCCGCCCTTCCTGGAGGCTGCCTATGT  
TGGGGGGGACCCTGCCTCAGCTGACCCGGCCTCTCTGCCCCACCCAAAGCCCAAACCTTGGTTTCTGT  
5 GAGAATAGTGGAGGAAGGTGAGATGGCCAGTTTGAAGCCTGTGCCCTCCAGCTTAAATCCTAGCAG  
GAGAGAGGCTCTGGGGCAGCCCCCATGGGCTCCTGCCCTTTCAGGCCTACAGCCACATCCCCAAG  
CCCACCAGGTGTGAGGATAGTCACAGTGATACCAGTTCAGACACTACCCCATATACACCTGGAACA  
TTGAGGATGGAACTGGACTCACATTTCGACATACCCCACTGGGCACACGCACAAACACACACACTA  
10 TGGGGTGGGGTGGGTGTAGGGGCTTACAAAGCCTTACACAGGGCGAGGGGTGGTGGGAGGGTGG  
CACCTGCACACTCCATCTCCTGCTCACCACCTGCCTCTAATCTGAGCTGCAGCCTGGCTGGTCTCTC  
CCATTTCTAAAGCTGAATGTCAAACAGTGCCAAATGCTGGGGCAGGGGGTGAAGAACCCTCTGTCC  
CACCCCTAGCCACCACTGCTCCTCCAAGTGCCCCCTCACCTCTCCAGGTGCTCATTGTAACCATTTT  
TCACCTAGTGTGAGGCCCCCAGTGGGACCACATGCCACTGCCTGCACCTTTTCGGCAGAGGAACCCCC  
15 ACCAGACATCACCTTTGCCTTAGCAGGGGTGACTTTGTCTCTCCTGGCTGGGCCATCCTTCCGCC  
AATCTGGCCCTTACACACTCAGGCCTGTGCCCACTCCCTATCTCCTTCCCACCCCTACACACACAC  
TCCCTGCTTGAGGAGGCCAACTGTCCCTCCCTTGCTGAACACACACACACACACACACACAG  
GTGGGGACTGGGCACAGCTCTTACACCATTCTATTCTGGTCATTTCCCCCAAAGGCATCCAGCCT  
GGGGGCCAGTGGGGAAGTGGGGCAAGGGGATATAGTGATGGGGCTCAGATGGACTGGGAGGAGGG  
GGAGGGTGATGCATTAATTAATGGCTTCGTTAATTAATGTCATGTTGCTTGTCTGCTTCTCAGTGT  
20 GTGTGTGTGGTCCATGCCCACTGCTGGTGCCAGGTGGGTGTCATGTGCACCCGGCCTGGATGCC  
AGCTGTGTCTTCGGGGGCGTGCCTGTAAGTGTAGTGTAGTCAGGTGCTCAATGGAGAATATAAAC  
ATATACAGAAAAATATATATTTTAAAGTTTAAAAAACAGAAAAACAGACAAAACAATCCCCATCAGG  
TAGCTGTCTAACCCCCAGCTGGGTCTAATCCTTCTCATTACCCACCCGACCTGGCTGCCCTCACC  
TTGGGCTGGGGGACTGGGGGGCCATTTCTTTCTCTGCCCTTTTTTTTGTGTTCTATTTGTACA  
25 GACAAGTTGAAAAACAACAGCGACAAAAAGTCAAGAACTTTGTAAATATCGTGTGTGTGATT  
CCTTGTAATAATTTTTCAAATGGTTTATTACAGAAGATCAGTTATTAATAATGTTTCATATTTTCA  
CTTC

(2) INFORMATION FOR SEQ ID NO: 2:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: protein

## (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION:  $\alpha 2\delta$ -B

## (iii) MOLECULE TYPE: protein

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

MAVPARTCGASRPGPARTARPWPGCGPHGPGTRRPTSGPPRPLWLLLPLLPLLAAPGASAYSFPQ  
QHTMQHWARRLEQEVDGVMRIFGGVQQLREIYKDNRNLFQENEPQKLVEKVAGDIESLLDRKVQ  
ALKRLADAAENFQKAHRWQDNIKEEDIVYYDAKADAELDDPESEDVERGSKASTLRDLDFIEDPNFK  
NKVNYSYAAVQIPTDIYKGSTVILNELNWTEALENVFMENRRQDPTLLWQVFGSATGVTRYYPATP  
WRAPKKIDLYDVRRRPWYIQGASSPKDMVIIVDVSGSVSGLTLKLMKTSVCEMLDLSDDDYVNA  
50 SFNEKAQPVSCFTHLVQANVRNKKVFKEAVQGMVAKGTTGYKAGFEYAFDQLQNSNITRANCNKMI  
MMFTDGGEDRVQDVFEKYNWPNRTVRVFTFSVGQHNVDVTPLOWMACANKGYFEIPSIGAIRINT  
QEYLDVLGRPMVLAGEAKQVQWNTNVYEDALGLGLVVTGTLVPVFNLTQDGPGEKKQNLILGVMGID  
VALNDIKRLTPNYTLGANGYVFAIDLNGYVLLHPNLKPQTTFNREPVTLDLDAELEDENKEEIRR  
SMIDGNKGHKQIRTLVKSLLDERYIDEVTRNYTWVPIRSTNYSGLVLPYSTFYQLANLSDQILQV  
55 KYFEFLLPSSFESSEGHVFIAPREYCKDLNASDNNTEFLKNFIELMEKVT PDSKQCNNFLLHNLILD  
TGITQQLVERVWRDQDLNTYSLLAVFAATDGGITRVFPNKAEDWTENPEPFNASFYRRSLDNHGY  
VFKPPHQDALLRPLELENDTVGILVSTAVELSLGRRTLRAVVGVKLDLEAWAEKFKVLASNRTHQ

-4-

DQPQKCGPNSHCEMDCEVNNEDLLCVLIDDDGGFLVLSNQNHQWDQVGRFFSEVDANLMLALYNNSE  
YTRKESYDYQAACAPQPPGNLGAAPRGVVFVPTVADFLNLAWWTSAAAWSLFQQLLYGLIYHSWFQA  
DPAAEGSPETRESSCVMKQTQYYFGSVNASYNALIDGNC SRLFHAQRLTNTNLLFVVAEKPLCS  
QCEAGRLLQKETHCPADGPEQCELVQRPYRRGPHICFDYNATEDTSDCGRGASFPPSLGVLVSLQ  
5 LLLLLGLPPRPQPQVLVHASRRL

(2) INFORMATION FOR SEQ ID NO: 3:

- 10 (i) SEQUENCE CHARACTERISTICS:  
    (A) LENGTH:  
    (B) TYPE:  
    (C) STRANDEDNESS: single  
    (D) TOPOLOGY: linear  
15 (ii) MOLECULE TYPE: cDNA  
    (ix) FEATURE:  
        (A) NAME/KEY: Coding Sequence  
        (B) LOCATION:  
        (D) OTHER INFORMATION:  $\alpha 2\delta$ -C  
20 (iii) MOLECULE TYPE: cDNA

09787657 "032001"  
25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
TACTATAGGGCGGCCGGAATTTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC  
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30 GGGAGCCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCGTCCCGGGGGGCGCTCGGCGCTTCTCG  
CTGCCGCGCTTCTCTACGCCGCGCTGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG  
TGGTGAAGCTCTGGGCCCTCGGCTTTTGGTGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT  
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC  
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35 GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG  
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG  
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC  
AAGTACCAACGAACATGTACAACAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC  
40 TAAACAAAGTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG  
CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT  
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG  
TTGACGTGAGTGGCAGCATGAAAGGACTCCGTCTGACTATCGCGAAGCAAACAGTCTCATCCATTT  
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45 TGGACAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC  
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG  
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50 TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA  
GCACTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC  
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC  
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAAATAATG  
GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA  
55 ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA  
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGAAACGGG  
TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTCAGTTTAGGTGTGG  
CGCTTTCAGAGGTGATGGGAAATATTTCTTCCGAGGGGAATGTAACCATCGAAGAAGGCCTGCATG  
ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCTTACTGCAACACTGACCTACACCCTG  
AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAAGCTCTACCTAAAAGGCAAAGAACCTCTGCTCC  
AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTTTGACGCGGTGGTGAGTGCCCCCATTGAAGCGT  
ATTGGACCAGCCTGGCCCTCAACAAATCTGAAAATTTGACAAGGGCGTGGAGGTTGCCTTCTCTCG

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GCACCTCGCACGGGGCTCTCCAGAATCAACCTGTTTGTGCGGGGCTGAGCAGCTCACCAATCAGGACT  
TCCTGAAAGCTGGCGACAAGGAGAACATTTTAAACGCAGACCATTTCCTCTCTGGTACCGAAGAG  
CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTGAGCACTGGACCAGTCAATAAAA  
GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGGAAATCTCCTGTGGTGGCAG  
CTGTAGGCATTGAGATGAACTTGAATTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG  
CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGTGAATTGTTACCTCATAGACA  
ATAATGGATTTATTTTGGTGTCTGAAGACTACACACAGACTGGAGACTTTTTTGGTGAGATCGAGG  
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CCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCTTATAATGCCT  
TCCTCTCTGCAGTAAATGGATCATGACAGAATTGTCTTGTTCCTGGTGAATTTAACCTCTGCA  
GTTGGTGGCACTCCGATATGACAGCTAAAGCCCAGAAATTGAAACAGACCCTGGAGCCTTGTGATA  
CTGAATATCCAGCATTCGTCTCTGAGCGCACCATCAAGGAGACTACAGGGAATATTGCTTGTGAAG  
ACTGCTCCAAGTCCTTTGTCTATCCAGCAAATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGGACA  
GCAGCTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGCACCCATTGAAATCAGGTATAATGAAT  
CCCTTAAGTGTGAACGTCTAAAGGCCCAGAAGATCAGAAGGCGCCGAGAAATCTTGTGATGGCTTCC  
ATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAGTCTCCAAGCCAGACAGTCTCCTCTTC  
TGCTCCCTCTGCTTTTGTGCTCTTCTCAAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAG  
ATGTTCTCTTGGCATGCTAAATCATGGATAAATGTGAACCAAAATATGGTGCAACATACGAGACA  
TGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAACTGTGCGTGATATAAACTCTTAAAG  
ATATGTTGACAAAAAGTTATCTATCATCTTTTACTTTGCCAGTCATGCAATGTGAGTTTGCCAC  
ATGATAATCACCTTTCATCAGAAATGGGACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAAACC  
TATTGAAACCAATTTAAACTGTGTACTTTTAAATAAAGTATATTAAATCATAAAAA  
AAAAA

## (2) INFORMATION FOR SEQ ID NO: 4:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
(D) OTHER INFORMATION:  $\alpha 2\delta$ -D

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CCATGCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC  
CAATGCCCCTGGCCTGGGCCTTTGTGAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA  
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAAACAGTGAAGCTATGGGCTGACA  
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT  
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAAGTCTTCT  
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAGCTGCCG  
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGA  
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG  
CTCACTTCAGCAACCTGCCGTTGAACACCTCCATCAGCAGCGTGCAGCTGCCCACCAACGTGTACA  
ACAAAGACCCAGATATTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA  
ACTTCCAGAGAGACCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT  
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTACTGCCGAAACCGCGGCT  
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA  
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGACACCCCTGGGGGAGAATG  
ACTTCGTAAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC  
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG

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GTGTGGGGGTCGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA  
 AGCAAAGGAAGCCTCTGCAACAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC  
 CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTCACTTACCTCATTGGGAGAG  
 AAGTGCTTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAAGGCTACTACACGCAGATCT  
 5 CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCATGGTCA  
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 CTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT  
 CCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC  
 CCCGGTACAAGCTTGGAGTGCACGGATACGCCCTTCTGAACACCAACAATGGCTACATCCTCTCCC  
 10 ATCCCGACCTCCGGCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG  
 TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGG  
 AAACAGGTACTCTCTCGATGGATGTGAAGTTCGGATGGATAAAGGGAAGCGAGTTCTTTTCCGGA  
 CCAATGACTACTTCTTACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTCTCCCGGG  
 15 GCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTCACC  
 CAGACCTGGCCCTGGCCGGTGAATGCTGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC  
 TCAGCCAGCTAGAGGCCATGATCCGCTTCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGG  
 AGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGCCCCCATGGAAGCCTACTGGACAGCGC  
 TGGCCCTCAACATGTCCGAGGAGTCTGAACAGCTGCTGGACATGGCCCTTCTTGGGCAACCGGGGTG  
 20 GCCTCCTGAGAAGCAGCTTGTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTTGACACCTG  
 AGGACGAGGCCAGCTGTTTCAACCTCGCTGGGCAAGGACCCAGAAAGTGCAGGTTGAACCCATGG  
 TGGTGACGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGG  
 GCGTCCAAATGAAGCTGGAATTCTCCAGCGCAAATTCTGGGCGGCAACGCGGCAGTGCAGCACTG  
 25 TGGATGGGCGTGCACACAGAGCTGCGAGGACAGTGTGACTGCTTCGTATCGACAACAACG  
 GGTTCATTCTGATCTCCAAGAGGTCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGCTG  
 TCTGACCCAGCTGCTCAGCATGGGGGTGTTAGCCAAAGTACTATGTATGACTATCAGGCCATGT  
 GCAAACCTCGAGTCACCACCACAGTGCAGCCAGCCCCCTGGTCAGCCCAATTTCTGCCTTCTTGA  
 CGGCGACCAAGTGGCTGCTGCAGGAGCTGGTGCTGTTCTGCTGGAGTGGAGTGTCTGGGGCTCCT  
 30 GGTACGACAGGGGCGGAGGCCAAAAGTGTCTTCCATCACTCCACAAACACAAGAAGCAGGACC  
 CGTGCAGCCCTGCGACACGGATACCCCGTGTTCGTGTACAGCCGGCCATCCGGGAGGCCAACG  
 GGATCGTGGAGTGGGGCCCTGCCAGAAGGTATTTGTGGTGCAGCAGATTCCCAACAGTAACCTCC  
 TCCTCCTGGTGACAGACCCACCTGTGACTGCAGCATCTTCCACCAGTGTGCAGGAGGCGACAG  
 AAGTCAAATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCAGAAAGCTCCGCCGGCGACCAG  
 35 ACTCCTGCCACGCCTTCCATCCAGAGGAGAATGCCAGGACTGCGGCGGCGCCTCGGACACCTCAG  
 CCTCGCCGCCCTACTCCTGCTGCCTGTGTGTGCCTGGGGGCTACTGCCCAACTCCTGCGGTGAC  
 ACCACCCAGCCTGACCTGTGTTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACT  
 GACATGGGATGCAGCTAACTGCAGTTGGGTGCCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTG  
 GTGGCCCCCTGGTCCGGAGAATGCTGGATGGAACAGGAAACCAATCACCTGGCACCATTCTCAAGA  
 40 TGCTTCACTGGTGCCCGGTACCATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTC  
 CTGTCTCCTCTTCGGGAAGCCAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCC  
 TGTACTCCAGAGTCCAGACCCAGCCAAGAAAGGGTCAGTTGTTTCTGACCTTTCTGTGCGAGTGG  
 TCTCTGGTAGAACCCAAGGACTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAG  
 ATGAGGCTAAGGCAAGAATATGCCCAACTAAAGCATAGATTCCCAAAAGTGAGGCTCATGGTGGG  
 45 AGGCCACTCACCTTCTAGCTGCTGCTCGAAAAGGTTTTGACTGTGTTGGGGTGGGGGTGGGTAA  
 GGAATGGTCAAGACTGAGAAAGGAATGAAATCCATTAGGAAATATCGACAGGGCTACACGTGAT  
 GTCCCCAAACTGCTGCTATTGAAGAACTTCCCAAACTTCTTTACAAAGCCCTAAAGGAAAGTTTG  
 CATCTATGAAAAGCCAATAGGCTGAGACATCCAATTGCTGCATGGAAATTGATGTACATTACAGGG  
 50 ACGGCAAAAATAGCTGTAAAATAGTGAAGAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTT  
 ACAAAGAATCTACTTGACTCTGTCCCTGGAGTGAATCCTTAGGGTTGGAACCTGTGGGAACATT  
 CCAACTTGCTAAGCAGGGTCCACTGGGAGGGAAGCTCTATCTGGGAACCTACCCCCAGCGCACACA  
 CATCTCCCCCAGGGTCCCAAGGCCCGCAGCTTCTCCCCCGACCAAAACCCCAAGACCTGGATCCC  
 AGGAGACAACAGTCTCCACATGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGC  
 CGGCCTCAAATCTTTCCATTTAACAACCCCAAGTATGGGTATGGACAGCATGCAGGGCTTTTGGG  
 55 GCGCTTCCCCCGCTCCTCCATCACCTCAGCCTCCACACTTCAAAGTTCAAGTTCAAAGCTGTTT  
 AAGTTTCTTACCAGCAAATAGCCCTAACTTGCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAC  
 AACTTACATTATCGGTTACAGAATGTACTCTTACCATCATGTCTTGCAACAACCCCTGTGAGGGC  
 AGTATTAATGCCCCCTTACAGCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATG  
 CTAGAACAGCTAAGGTTTACATGTACCAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCC  
 CCCTGAAAGTGGGTACTATCATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAATTGCCTC

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CAAATTACCGGAAGAGTGTATGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCT  
GGCATATACTAAACGCTAAATAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAA

5 (2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

10 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

15 (B) LOCATION:

(D) OTHER INFORMATION:  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

20 MAGPGSPRRASRGASALLAAALLYAALGDVVRSEQQIPLSVVKLWASAFGGEIKSIAAKYSGSQLL  
QKKYKEYEKDVAIEEIDGLQLVKKLAKNMEEMFHKKSEAVRRLVEAAEEAHLKHEFDADLQYEYFN  
AVLINERDKDGNFLELGKEFILAPNDHFNNLPVNISLSDVQVPTNMYNKDPAIVNGVWSES LNKV  
25 GSMKGLRLTIAKQTVSSILDTLGDDDDFFNIIAYNEELHYVEPCLNGTLVQADRTNKEHFREHLDKL  
FAKGIGMLDIALNEAFNILSDFNHTGQGSICSQAIMLITDGAVDTYDTIFAKYNWPDRKVRIFTYL  
IGREAAAFADNLKWMACANKGFFTQISTLADVQENVMEYLVLSRPKVIDQEHVWTEAYIDSTLT  
DDQGPVLMTTVAMPVFSKQNETRSKGILLGVVGTDPVKELLKTIPKYKLGIGHYAFAITNNGYIL  
THPELRLLYEEGKKRRKPNYSSVDLSEVEWEDRDDVLNRNAMVNRKTGKFSMEVKKTVDKGKRVLM  
30 TNDYYTDTIKGTPFSLGVALSRGHGKYFFRGNVTIEEGLHDLEHPDVSLADEWSYCNLDLHPEHRH  
LSQLEAIKLYLKGKEPLLQCDKELIQEVLFDVVSAPIEAYWTSIALNKSENSDKGVEVAFLGTRT  
GLSRINLFVGAEQLTNQDFLKAGDKENIFNADHFPLWYRRAAEQIPGSFVYSIPFSTGPVNKSNV  
TASTSIQLLDERKSPVVAAVGIQMKLEFFQRKFWTASRQCASLDGKCSISCDDETVCYLIDNNGF  
ILVSEDYDTQDFFGEIEGAVMNKLLTMGSFKRITLYDYQAMCRANKESSDGAHGLLDPYNAFLSA  
35 VKWIMTELVLFLVEFNLCSWWHSDMTAKAQKLKQTLPCDTEYPAFVSERTIKETTGNIACEDCSK  
SFVIQQIPSSNLFMVVDSSCLCESVAPITMAPIEIRYNESLKCERLKAQKIRRRPESCHGFHPEE  
NARECGGAPSLQAQTVLLLLPLLLMLFSR

40 (2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

45 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

50 (B) LOCATION:

(D) OTHER INFORMATION:  $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

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MPATPNFLANPSSSSRWIPLQMPVAWAFVQKTSALLWLLLLGTSLSPAWGQAKI PLETVKLWADT  
FGGDLyntvTKYSGSLLQKKYKDVESLKI EevDGLelVRKFSEDmenMLRRKVEAVQNLVEAAE  
EADLNHEFNESLVFDYYNSVLINERDEKGNFVELGAEFLLSNAHFSNLPVNTS ISSVQLPTNVYN  
KDPDILNGVYMSEALNAVFVENFQRPDPTLTWQYFGSATGFFRIYPGIKWTPDENG VITFD CRNRGW  
5 YIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITITLDTLGENDFVNIIAYNDYVHYIEPCFKGIL  
VQADRDNRHFKLLVEELMVKGVGVDQALREAFQILKQFQEAQGS LCNQAIMLISDGAVEDYEP  
VFEKYNWPDCKVRVFTYLIGREVSFADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVI  
NHDHDIIWTEAYMDSKLLSSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGS DVALRELMKLAP  
10 RYKLG VHG YAFLNTNNGYILSHPD LRPLYREGKKLKPKNYNSVDLSEVEWEDQAESLRTAMINRE  
TGTL SMDVKVPMDKGKRVLFLTNDYFFTDISDTPFSLGVVLSRGHG EYILLGNTSVEEGLHDL LHP  
DLALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECDEELVREVLFD AVVTAPMEAYWTAL  
ALNMSESEHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFELTPEDEASVFTLDRFPLWYRQASEHP  
AGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAAGVQMKLEFLQRKFWAATRQCSTV  
15 DGPCTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQAMC  
KPSSHHSAAQPLVSPISAFLTATRWLLQELVLFLEWSVWGSWYDRGAEAKSVFHHSHKHKKQDP  
LQPCDTEYPVFVYQPAIREANGIVECGPCQKV FVQQIPNSNLLLLVTDP TCDCSIFPPVLQEATE  
VKYNASVKCDRMRSQKLRRRPSCHAFHPEENAQDCGASDTSAS PPLLLL PVCAGWGLLPQLLR

## (2) INFORMATION FOR SEQ ID NO: 7

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION:

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

AGGATGGCCCTGGGGAAAAGAAGA

## (2) INFORMATION FOR SEQ ID NO: 8

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: 3' primer for  $\alpha 2\delta$ -B

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:



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ATCATCAATGAGGACACAGA

## (2) INFORMATION FOR SEQ ID NO: 9

- 5 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
10 (ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
(D) OTHER INFORMATION: 5' primers used for RT-PCR of  $\alpha 2\delta$ -C  
15 (iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:  
AGAACGAAACCAGATCGAAG

## 20 (2) INFORMATION FOR SEQ ID NO: 10

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
25 (C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
30 (B) LOCATION:  
(D) OTHER INFORMATION: 3' primer used for RT-PCR of  $\alpha 2\delta$ -C  
(iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
35 CGATTACCATAGCATTCTC

## (2) INFORMATION FOR SEQ ID NO: 11

- 40 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
45 (ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:

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(D) OTHER INFORMATION: primer for  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

5 CTACCAAGCCATGTGTA

(2) INFORMATION FOR SEQ ID NO: 12

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

15 (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer to amplify mouse  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

AGAACGAAACTAGGTCAAAG

(2) INFORMATION FOR SEQ ID NO: 13

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

30 (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

35 (D) OTHER INFORMATION: 3' primer to amplify mouse  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

CGATTACCATGGCATTTCGT

40

(2) INFORMATION FOR SEQ ID NO: 14

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

5 (D) OTHER INFORMATION: rat sequence for  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

10 GATTCTTCTGGGTGTGGTTGGCACAGATGTCCCAGTAAAAGAGCTTCTGAAGACCATCCCCAAATA  
CAAGTTAGGAATTCATGGTTATGCCTTTGCCATCACGAATAATGGATACATCTTGACACACCCGGA  
GCTCAGGCCCTGTATGAAGAAGGGAAAAAGCGAAGGAAGCCTAATTACAGTAGTGTGGATCTCTC  
GGAAGTCGAGTGGGAAGATCGGGATGATGTGTTACGAAATGCCATGGTAAATCGAC

(2) INFORMATION FOR SEQ ID NO: 15

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

25 (D) OTHER INFORMATION: (1690-1761)  $\alpha 2\delta$ -D, human splice

variant

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

30 CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC  
CAATGCCCCTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA  
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAAACAGTGAAGCTATGGGCTGACA  
CCTTCGGCGGGGACCTGTATAACACTGTGACCAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT  
35 ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT  
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG  
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGA  
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG  
CTCACTTCAGCAACCTGCCGCTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTACA  
40 ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA  
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT  
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGGTGGACGTGAGCGGCAGTATGA  
GGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCCTGGGGGAGAATG  
ACTTCGTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC  
45 TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAAGTCTGGTGGAGGAGTTGATGGTCAAAG  
GTGTGGGGGTCTGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA  
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC  
CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTCACTTACCTCATTGGGAGAG  
AAGTGTCTTTTGTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT  
50 CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCCATGGTCA  
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence  
(B) LOCATION:

(D) OTHER INFORMATION: human variant  $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCCTCCAGC  
CAATGCCCCTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA  
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAAACAGTGAAGCTATGGGCTGACA  
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT  
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT  
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG  
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGA  
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG  
CTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCACCAACGTGTACA  
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA  
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT  
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGACTGCCGAAACCGCGGCT  
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA  
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCCTGGGGGAGAATG  
ACTTCRTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC  
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG  
GTGTGGGGTTCGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA  
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC  
CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTTCACTTACCTCATTTGGGAGAG  
AAGTGTCTTTTGTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT  
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCATGGTCA  
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG  
CTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT  
CCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC  
CCCGGTACAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCC  
ATCCCAGACCTCGGCCCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG  
TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGG  
AAACAGGTACTCTCTCGATGGATGTGAAGGTTCCGATGGATAAAGGGAAGCGAGTTCTTTTCTGA  
CCAATGACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTGTCCCGGG  
GCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTACC  
CAGACCTGGCCCTGGCCGTGACTGGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC  
TCAGCCAGCTAGAGGCCATGATCCGCTTCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGG  
AGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGCCCCCATGGAAGCCTACTGGACAGCGC  
TGGCCCTCAACATGTCCGAGGAGTCTGAACACATTTGGTGGACATGGCCTTCTGGGACCCGGGCTG  
GCCTCCTGAGAAGCAGCTTGTTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTTGACACCTG  
AGGACGAGGCCAGCGTGTTCACCCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCTCAGAGCATC  
CTGCTGGCAGCTTCGTCTTCAACCTCCGCTGGGCAGAAGGACCAGAAAGTGCGGGTGAACCCATGG  
TGGTGACGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGG  
GCGTCCAATGAAGCTGGAATTCTCCAGCGCAAATTTCTGGGCGGCAACGCGGCAGTGCAGCACTG  
TGGATGGGCCGTGCACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTTCATCGACAACAACG  
GGTTCATTCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGTCTG  
TCCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGACTATGTATGACTATCAGGCCATGT  
GCAAACCCCTCGAGTCACCACCACAGTGACAGCCAGCCCTGGTTCAGCCCAATTTCTGCCTTCTTGA

CGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGTCTGTGAGTGGGGGTAGACACGGGGCTGGTGGAG  
GCTGCATGCGAGGGTGGCTTAGGAGGGTGTCTTGATCAGGAGGCTGCAAGGTCTCCAGGACAACC  
CACTTGCTACCAAGACCCCGGGGAAGGAGGGCACAATCCCTGGGCATGGACGCCACCTCTTCCCTG  
CATGCTTGCCCCCTGGGAGGGACCTCATTGCTCAACCAGAGCCCTCAAGCAGGGAAGAGGGTGTCTT  
5 GGAGGAGAGGGGATGGGCCGGGGGCTGTGAGGGATACTCCAGCTCCTTGGGAACCCAAAGTGGGGAG  
GGCTCAGAGGTCTCCGAGATTAGTCTGTGTCTGACAGGTTCTGTGCTGGAGTGGAGTGTCTGGGG  
CTCCTGGTACGACAGAGGGGCCGAGGGTGAAGTGCACGGAGCTGCAGGGCCATGTGCTGAAGAGCAG  
TGGCATTGTTGGTCCACTAACGTGAGACCATTCCTGTGGGGTGGGTGACAGTGGGGATAGGTGACC  
CTGAAGCATCGTTGTTACATCTCACCTGCGTGGCCTTCTCTCATCACATCCCTCACTCCTGGCT  
10 CTGTGTGTGACATCATCTTGGGACACCGCCACTCCATGTGCCATCATCACCACCCCATGACATCCT  
GCCCTCATGTGCCACCATGTTTTCCTGTGCGGTGTCCACCCTGTGCTGGGCTTATGTTCCGGCCAG  
CCAAAAGTGTCTTCCATCACTCCCAAAACACAAGAAGCAGGACCCGCTGCAGCCCTGCGACACGG  
AGTACCCCGTGTTCGTGTACCAGCCGG: CCATCCGGGAGGCCAACGGGATCGTGGAGTGGGGGCC  
TGCCAGAAGGTATTTGTGGTGCAGCAGATTCCCAACAGTAACCTCCTCCTCCTGGTGCAGAGCCCC  
15 ACCTGTGACTGCAGCATCTTCCCACAGTGTGCAGGAGGCGACAGAAGTCAAATATAATGCCTCT  
GTCAAATGTGACCGGATGCGCTCCAGAAAGTCCGCCGGCGACCAAGTCTGCTGCCACGCCTTCCAT  
CCAGAGGAGAAATGCCAGGACTGCGGYGGCGCCTCGGACACCTCAGCCTCGCCGCCCCCTACTCCTG  
CTGCCTGTGTGTGCTGGGGCTACTGCCCCACTGCTGCGGTGACACCACCCAGCCTGACCTGTG  
TTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACTGACATGGGATGCAGCTAAT  
20 GCAGTTGGGTGCGCCCCAGGCCACGCTCCTCTCAATCCTGGGCTGGTGGCCCCCTGGCTCCGGAGA  
ATGCTGGATGGAACAGGAAACCAATCACCTGGCACCACTTTCAAGATGCTTCATGGTGCCCCGTAC  
CATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTCTGTCTCCTCTTCCGGAAGC  
CAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCTGTACTCCAGAGTCCAGACC  
CAGCCAAGAAAGGTGAGTTGTTTCTGACCTTTCTGTGCGAGTGGTCTCTGGTAGAACCCAAGGA  
25 CTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAGATGAGGCTAAGGCAAGAATA  
TGCCCCAACTAAAGCATAGATTCGCCAAAGTGAGGCTCATGGTGGGAGGCCACTCACCTTCCTAGC  
TGCTGCTCGAAAAGGTTTTGACTGTGTGGGGTGGGGGTGGGTAAGGGAATGGTCAAGACTGAGA  
AAGGAATGAAATCCATTCAGGAAATATCGACAGGGCTACACGTGATGTCCCCAACTGCTGCTATT  
GAAGAACTTCCCCAAACTTCTTTTACAAAGCCCTAAAGGAAAGTTTGCATCTATGAAAAGCCAATAG  
30 GCTGAGACATCCAATTGCTGCATGGAATTGATGTACATTGAGGGGACGGCAAAAATAGCTGTAAA  
ATAGTGAAAAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTTACAAAAGAATCTACTTGACT  
CTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTGTGGGAACATTCCAACCTGCTAAGCAGGGTC  
CACTGGGAGGGAAGCTCTATCTGGGAACACCCCCAGCGCACACATCTCCCCAGGGTCCCAA  
GGCCCCCGCAGCTTCTCCCCCGACCAACCCCAAGACCTGGATCCCAGGAGACAACAGTCTCCACA  
35 TGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGCCGGCCTCAAATCTTTCATT  
TAACAAACCCCAAGTATGGGTATGGACAGCATGCAGGGCTTTTGGGGCGCTTCCCCCGCTCCTCC  
ATCACCTCAGCCTCCACACTTCAAAGTTCAAAGTTCAAAGCTGTTCAAGTTTCTTACCAGCAAATA  
GCCCTAACTTGCCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAACACACTTACATTATCGGTTAC  
AGAATGTCACTCTTACCATCATGTCTTGCAACAACCCTGTGAGGGCAGTATTAATGCCCCCTTACA  
40 GCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATGCTAGAACAGCTAAGGTTTAC  
ATGTACCAAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCCCCCTGAAAGTGGGTACTATC  
ATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCCTCCAAATTACCGGAAGAGTGTA  
TGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCTGGCATATACTAAACGCTAAA  
TAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 17

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION: human variant  $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

MPATPNFLANPSSSSRWIPLQPMPPVAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV  
KLWADTFGGDLNTVTKYSGSLLLQKKYKDVESLKIIEVDGLELVRKFSEDMENMLRR  
KVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLSNAHFS  
NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVVENFQRDPTLTWQYFGSATGFF  
DTLGENDFVNIIAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVDQALR  
EAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGREVSF  
ADRMKWIACNNKGYTYQISTLADTQENVMEYLHVLSRPMVINHDHDIIWTEAYMDSKLL  
SSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGSVALRELMKLAPRYKLGVBHGYAFL  
NTNNGYILSHPDRLPLYREGKKLKPKNYNSVDLSEVWEDQAESKRVFLTNDYFFTDI  
SDTPFSLGVVLSRGHGEYILLGNTSVEEGLHDLHPDLALAGDWIYCITDIDPDHRKLSQL  
EAMIRFLTRKDPDLECEELVREVLFDVVTAPMEAYWTALALNMSESESHVVDMAFLG  
TRAGLLRSSLFVGSEKVS DRKFLTPEDASVFTLDRFPLWYRQASEHPAGSFVFNLRWAE  
GPESAGEPMVVTASTAVAVTVDKRTAIAAAGVQMKLEFLQRKFWAATRQCSTVDGPC  
TQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQA  
MCKPSSHHHSAAQPLVSPISAFLTATR WLLQELVLFLEWSVWGSWYDRGAEAKSVFHH  
SHKHKKQDPLQPCDTEYPVFVYQPAIREANGIVECGPCQKVFVVQQIPNSNLLLLVTDPTC  
DCSIFPPVLQEATEVKYNASVKCDRMRSQKLRRRPDSCHAFHPEENAQDCGGASDTSASP  
PLLLPVCAWGLLPQLLR

(2) INFORMATION FOR SEQ ID NO: 18

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer for human  $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

GCGAGGACAGTGATCTGG

(2) INFORMATION FOR SEQ ID NO: 19

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(D) OTHER INFORMATION: 3' primer for human  $\alpha 2\delta$ -D

GGGTCCTCGTTCTTGTGTTT

(D) OTHER INFORMATION: nested primer for human  $\alpha 2\delta$ -D

25 TCAGCCTCCACACTTCAAAG

(D) OTHER INFORMATION: primer for human  $\alpha 2\delta$ -D

TCCGCCTGGACGAGGATCC

(2) INFORMATION FOR SEQ ID NO: 22

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## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human  $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

GTGTCCAAGATGGTGGTGAT

## (2) INFORMATION FOR SEQ ID NO: 23

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human  $\alpha 2\delta$ -D (d20)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

ATCTACTGCATCACAGATATTG

## (2) INFORMATION FOR SEQ ID NO: 24

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for human  $\alpha 2\delta$ -D ( $\alpha 2\delta$ D2)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:



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GGTGAGGAAGCGGATCATG

## (2) INFORMATION FOR SEQ ID NO: 25

5 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
10 (ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
(D) OTHER INFORMATION: 5' primer mouse genomic of  $\alpha 2\delta$ -B  
15 (iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:  
TTCAACGAGAAGGCACAGCCT

## 20 (2) INFORMATION FOR SEQ ID NO: 26

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
25 (C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
30 (B) LOCATION:  
(D) OTHER INFORMATION: 3' primer mouse genomic of  $\alpha 2\delta$ -B  
(iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:  
35 GTTGGCACAGGCCATCCACTG

## (2) INFORMATION FOR SEQ ID NO: 27

40 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
45 (ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,  
based on human

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:  
AGGCTGTGCCTTCTCGTTGAA

(2) INFORMATION FOR SEQ ID NO: 28

10 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

15 (ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

20 (D) OTHER INFORMATION: primer for sequencing mouse genomic,  
based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:  
25 GAGCCCCCAAGAAGATCG

(2) INFORMATION FOR SEQ ID NO: 29

30 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

35 (A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,  
based on human

(iii) MOLECULE TYPE: cDNA

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:  
CGATCTTCTTGGGGGCTC

(2) INFORMATION FOR SEQ ID NO: 30

45

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## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,

based on human

## (iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CACGATGATGACCATGTC

## (2) INFORMATION FOR SEQ ID NO: 31

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,

based on mouse

## (iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

GGCAAGACCCTACACTGTTG

## (2) INFORMATION FOR SEQ ID NO: 32

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,  
based on mouse

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:  
CCTGGTAATAGCGAGTGAC

(2) INFORMATION FOR SEQ ID NO: 33

10 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

15 (ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

20 (D) OTHER INFORMATION: 5' genomic sequence from 10kb  
fragment for mouse  $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

25 AAGCTTCTCTCTCATCACCAGGAGGAAGACATCATGTACTACGATGCCAAGGCTGACG  
CCGAGCTGGTAAGTGTCCCCACCTTTGCCGTAGAGGATGGGGAGCAGCCAGAGCCAC  
ACCTTGTTCTTCTGGGCCACAACAGTCTCAGCTGTAAAGTGGGTGTTAGGGATCCATG  
CTCACCTTTCTGAACTCAACCATTTCTGTGTCGTGCTTGGTCAGCCTCTCCTTGTCCACA  
GCTCCCTAGAGATCCTTGACCCTCCAGGGCGTGTCTTCATCACCATTATAGGCTAAGC  
TCCCCCTGCACCATGTGGAGCAAGCAGGGTGGTAGAGTGTTGGATATCAGGGTGGTTC  
30 CATCCCAGTATGAGGGGCTCTCTGGGCTCCATGGGAGTAGAGAGGAGAAAGAAATGG  
ACTCCAGGACCTCCTGGGGTAGGTACATGGGAGTGAGACATGGTGACATCTAAGCCC  
TGCCCAGGACAGTAGAGGCTCCTTTCCTTGTGATTTGGGGAACCTTGCATCAAGCTAT  
GTAGAAGAACCCATGG

35 (2) INFORMATION FOR SEQ ID NO: 34

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

40 (C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

45 (B) LOCATION:

(D) OTHER INFORMATION: 3' genomic sequence from 10kb  
fragment for mouse  $\alpha 2\delta$ -B

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(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CAGGTGGCCTGTGGCTGGGCCCCCTTCTCTGAACACTCACAGTGGAGACAGGGCTGGCC  
ACAGNAGACCCCATCCTTCTCTCCCTTCAGGGGCTGGGGTTGGTGGTAACAGGAACTT  
CTCCCTGTTTTCAACCTGACACAGGATGGCCCTGGGGAAAAGAAGGTGAGTTGCCAG  
TGGGTTATCTGGGGAGGAGTTGGCATGCCTGGAGCAGGTCTGGGGATGGAGGAGGGT  
TAGGGCATGCTACAGATTTGGCAAAGCAGCTCTCCGTATCAGCAGCTTAGCCCTTAGG  
CCTGGGCCAGGGGGTTCTACTATGGAGTTGACTCATTATAGCATACCTTCCCATTCTT  
TGTGTCCAGAACCAGTTAATCCTGGGTGTCATGGGCATCGATGTGGCCTTGAATGACA  
TCAAAAGGCTGACTCCCAACTACACAGTAAGTGTCCACCTGCCCCTCTGCCCTGGTTT  
GCTGTCCATAGTGACACAAGCCAGACTCAGCAGGGGAGACATGGGGACTGAAAGACC  
GTCACAGAAAGACTTCCCAAAGGGTTTGTCTGAAGCTGTGGACAGCAAGC

(2) INFORMATION FOR SEQ ID NO: 35

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 1.8 kb mouse genomic sequence for

mouse  $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

GCTTTCTTGTGGCTGCGGGCCTTGGAGTGCATGCTGAGTGGGTGAGCTCCCTGGGGGC  
CGGCTGCAGGCTCCAGGCAAGCATGCTGGATGGGGGCCAGCTCACAGCTCCCTGCC  
ACCCAGGCGGGCCCTTCTCCACAGGCCACAAACCACATCAGCCCTGCTTGCTACCGAG  
GCCTGGATGAGGGGTAGGCTGAGATATTTCTTTGATGATTTAGAGGAGGGAGAGCAA  
GAAAATCTCCCTGGAAGAGCTGGTGTGGCCCCACATGAGATCCTGGGAAATCAAAGA  
AAGCCTGGGCAGGCAGAAAGCAGGGGAGGCCATGGAGATGGGTTTAGCAGGGGGCG  
ACCCTGAACCTCCCAACCCAGCCTTCTGCCCTGCCCTCAGCTACCGTCATCCTCAAT  
GAGCTTAACTGGACAGAGGCCCTGGAGAACGTCTTCATTGAGAACCGTAGGCAAGAC  
CCTACACTGTTGTGGCAAGTCTTTGGCAGTGCCACGGGAGTCACTCGCTATTACCCAG  
GTAGGCACCACTGTCTCCCTGGCCCATCCAGCACCCGTCTTGCTCCATCTCCAAGCCTA  
CCCATTCTGAGGTCCATGGGGTACAATGAACCAGGTCAATCCCCATCACTCCCGCCTG  
CTCCAGTCAGACCCCTTCTGCCGGGGCCGGGCCCCCTTCACCCCTCTTTCCACAGCCACAC  
CATGGCGAGCCCCCAAGAAGATTGACCTGTACGATGTCAGAAGACGACCCTGGTGAG  
TGAGCAAGGGGGGTGGAGGCGAGACACCCCTCAACTCCCCATCTCTCGTGCCCGCTC  
CCCTCCCTCCCAATATCCAGACCTCCGAGCAGGGCGCAGCCAGCTCTATCCAATTTTC  
ATTTACACATCGCTGCCACTGGAAAAATGGATCCCATCGCCCAGGCAAGCCGCCAGC  
TGCCTCTGCCCCACGCGTGTCTGCTCCACTACCCAGCCCCCCCCACACCCACTCAGAACT  
GAGAGCAGACCAGGGAAGGTGCTTCCAGGGGTAGCTAGAGCCTCCGTCAAGTCAAGC  
GGCCCCACCTACTCATTTGATCCCTGGAGACCCCGACCCCTCTGCTCTGCTCTCTCACA  
CTACTCCATGATCTTCCCTCCCTCCATTACACAGCCAGACTCTCTGGAGTCTCTCT  
AGGACAGAGGACACAAGCCACTAAAGCCTTCTGTCCCGTGGATCACCTGCCCTTCC  
CCCTCACCTCTTGTCTTACTTAATGAGGGAACCAGATCACTCACGTCAAGAAAAA  
AAACTGTCTTTTGTATTGAGCATGGTCTCCCCAGTGCCAGACCTATTCCAACCCCTG

5 TAGTGCGTGGTTCAGTAGAAACACAGGAATCAAGTGGGTGGAAGAAGGAAGACCCCGC  
AGGTCCCGGAGGTGCCGTCTTAAGTCTTCTCACTGGCAGGTATATACAGGGGG  
CCTCATCACCCAAGGACATGGTCATCATTGTGGATGTGTGAGTGAGCCTTGTAGGCTG  
GTGGGATGGGCTAGGACTGGACTCTGCTTCCTGGGCACCTTATGAGGGAAGGGCGGG  
AAAACCCTGAGAGCCCACATGCATGCGCCCCCTTCCGTGCCTGGTTTCCAGGAGTGGG  
AGCGTGAGCGGCCTGACTCTGAAGCTGATGAAGACGTCCGTCTGTGAGATGCTAGAC  
ACGCTCTCTGATGATGACTATGTGAACGTGGCCTCAGTGAGTGGCAAGGTGGCAGGC  
AGGCTGGGTACCACTCACCCCATCCAACCTGCTCCCATGACAACCATCAGCCCTGTA  
10 CAACAGCTGCACACTGTGTGGCCAGCCTGAAGCCACTCACCACCCCCCACTGTCCCCA  
CAG

(2) INFORMATION FOR SEQ ID NO: 36

15 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

20 (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

25 (iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

GACAGGACCAACAAGGAGCAC

30 (2) INFORMATION FOR SEQ ID NO: 37

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
35 (C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

40 (B) LOCATION:

(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

(iii) MOLECULE TYPE: cDNA

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GCCAACCACACCCAGAAGAAT

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## (2) INFORMATION FOR SEQ ID NO: 38

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

 $\alpha 2\delta$ -C, PCR 5

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

AACGCACCATCAAGGAGACCA

## (2) INFORMATION FOR SEQ ID NO: 39

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

 $\alpha 2\delta$ -C, PCR 5

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

AGGGGCAGCAGCAGCAAG

## (2) INFORMATION FOR SEQ ID NO: 40

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

F00220 25978260

(B) LOCATION:

(D) OTHER INFORMATION: PCR1 product, rat  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

5 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

10 TTCAGGGAGCATTGGAACAACTTTTTGCCAAAGGGATTGGAATGCTCGATATTGCGCTGAACGAG  
GCCTTCAATGTACTGAGCGATTTCACACACACCGGACAAGGAAGCATTTGCAGCCAGGCCATTATG  
CTCATAACCGATGGGGCARTGGACACCTACGAYACCATCTTTGCAAAGTACAATTGGCCAGAGCGA  
AAGGTTCGAATCTTCACTTACCTCATTGGACGAGAGGGCTGCTTTTGCAGACAATCTCAAGTGGATR  
GCTTGTGCTAACAAAGGATTTTTCACCCAGATCTCCACCTTGGCTGATGTGCAGGAAAATGTCATG  
GAATACCTCCATGTACTCAGTCGACCCAAAGTCATCGACCAGGAACATGATGTGGTGTGGACCGAA  
GCGTACATCGACAGCACTCTCCCTCAGGCTCAAAGCTTGCTGATGATCAGGGCCTCGTCTTGATG  
ACCACAGTGGCCATGCCTGTGTTTAGTAAGCAGAACGAACTAGGTCAAAGGGC

15

(2) INFORMATION FOR SEQ ID NO: 41

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

20 (A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: PCR5 product, rat  $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

30 CAGGGAACATTGCTTGTGAAGAYTGCTCCAAGTCCTTTGTCATCCAGCAAATCCCAAGTAGCAATC  
TGTTTCATGGYGGTGGTGGACAGTAGCTGTCTGTGAGTCTGTGGCTCCTATCACCATGGCAGCCCA  
TTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGGTTAAAGGCTCAGAAGATCAGACGACGTC  
CGGAATCCTGCCACGGCTTCCATCCTGAGGAGAATGCGAGAGAGTGTGGGGGTGCATCAAGTCTCC  
35 AGGCCCAGGT

(2) INFORMATION FOR SEQ ID NO: 42

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION: Human  $\alpha 2\delta$ -D variant

(iii) MOLECULE TYPE: protein

09/87/657-032001  
T.00290-15928/60



## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

MPATPNFLANPSSSSRWIPLQMPVAWAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV  
KLWADTFGGDLNTVTKYSGSLLLQKKYKDVESSLKIEVDGLELVRKFSEDMENMLRR  
KVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLESNAHFS  
NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVVENFQORDPTLTWQYFGSATGFF  
RIYPGKIVTPDENGVITFDCRNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITTI  
LDTLGENDFXNIIAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVDQAL  
REAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGREVSF  
ADRMKWIACNNKGYTQISTLADTQENVMEYLHVLSRPMVINHDHDIWTEAYMDSKLL  
SSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGSVALRELMKLAPRYKLGVHGYAFL  
NTNNGYILSHPDLRPLYREGKKLKPKPNYNSVDLSEVEWEDQAESLRTAMINRETGTLSM  
DVKVPMDKGKRVLFLTNDYFFTDISDTPFSLGVVLSRGHGHEYILLGNTSVEEGLHDLHPD  
LALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECDDELVREVLFDVAVTAPMEA  
YWTALALNMSESEHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFTLDRF  
PLWYRQASEHPAGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAGVQM  
KLEFLQRKFWAATRQCSTVDGPCTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDG  
AVLTQLLSMGVFSQVTMYDYQAMCKPSSHHSAAQPLVSPISAFLTATR WLLQELVLVS  
GGRHGAGGGCMRGWLRRVSLIRRLQGLQDNPLATKTPGKEGTIPGHGRHLPACPLGG  
TSLNQSPQAGKRVS WRRGDGPGA VRDTPAPWEPKSGGLRGLRDSVLC LTGSCWSGVSG  
APGTTEGPRVSARSCRAMC

## (2) INFORMATION FOR SEQ ID NO: 43:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

## (ii) MOLECULE TYPE: cDNA

## (ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: >1907  $\alpha$ 2 $\delta$ -C, potent. soluble form

## (iii) MOLECULE TYPE: cDNA

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

TACTATAGGGCGGCGCGAATTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC  
GCCCACCGCCCGCTCCGCGCAGCTCCCCGCGGCGCGCTCTCGTCGCCGCCGCGAGCGGGCGCGTCGGA  
GGGAGCCCGAGCATGGCCGGGCGGCGCTCGCCGCGCCGCGCGTCCCGGGGGGCGCTCGGCGCTTCTCG  
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG  
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTGCTAAGTACTCCGTT  
CCCAGCTTCTGCAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC  
TCCAAGTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTCACAAGAAGTCTGAGGCCGTCA  
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG  
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG  
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC  
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC  
TAAACAAAGTTTTTTAGGATAACTTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG  
CAAAGGGCTTTTTTAGGAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT  
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG  
TTGACGTGAGTGGCAGCATGAAAGGACTCCGTCTGACTATCGCGAAGCAAACAGTCTCATCCATTT  
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG  
AACCTTGCTGAATGGAACCTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC

5 TGGACAAACTTTTTCGCCAAAGGAATTGGAATGTTGGATATAGYTCTGAATGAGGCCTTCAACATTC  
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG  
GGGCGGTGGACACCTATGATACAATCTTTGCAAATACAATTGGCCAGATCGAAAGGTTGCGCATCT  
TCACATACCTCATTGGACGAGAGGCTGCGTTTGCAGACAATCTAAAGTGGATGGCCTGTGCCAACA  
10 AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG  
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA  
GCACTCTGACTGATGATCAGGGCCCCGCTCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC  
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC  
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAATAATG  
15 GATATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA  
ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA  
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGGTACATT  
TTTCTCAAACATTTTTGCTGCTTAATTTAAACAAACCACTGTGAAAAATTAGCTTTGAAAGCTAT  
ATCTGGAATAAATATCTTTCGCTGAAGG

(2) INFORMATION FOR SEQ ID NO: 44:

20 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
25 (ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
(D) OTHER INFORMATION:  $\alpha 2\delta$ -C, (2686-2745, 2892-3001)  
(iii) MOLECULE TYPE: cDNA  
30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

35 TACTATAGGGCGGCCGCGAATTCGGCACGAGGCGGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC  
GCCCACCGCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCGCCGCGCAGCGGGCGCGTCCGA  
GGGAGCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCGTCCCGGGGGGCTCGGCGCTTCTCG  
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG  
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT  
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC  
TCCAACCTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTCACAAGAAGTCTGAGGCCGTCA  
40 GCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG  
AATACCTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG  
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC  
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTTATTGGTCTGAATCTC  
TAAACAAAGTTTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG  
45 CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT  
TCGACTGCAGGAACCGAAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG  
TTGACGTCAGTGGCAGCATGAAAGGACTCCGCTGACTATCGCGAAGCAAACAGTCTCATCCATTT  
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG  
AACCTTGCCTGAATGGAATTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC  
50 TGGACAAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC  
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG  
GGGCGGTGGACACCTATGATACAATCTTTGCAAATACAATTGGCCAGATCGAAAGGTTGCGCATCT  
TCACATACCTCATTGGACGAGAGGCTGCGTTTGCAGACAATCTAAAGTGGATGGCCTGTGCCAACA  
AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG  
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA

GCACCTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC  
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCAGTGAAAGAAC  
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAAATAATG  
GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA  
5 ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA  
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGAAACGGG  
TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTTCAGTTTAGGTGTGG  
CGCTTTCCAGAGGTCATGGGAAATATTTCTTCCGAGGGAATGTAACCATCGAAGAAGGCCTGCATG  
10 ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCCTACTGCAACACTGACCTACACCCTG  
AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAAGCTCTACCTAAAAGGCAAAGAACCTCTGCTCC  
AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTTGACGCGGTGGTGAGTGCCCCCATTGAAGCGT  
ATTGGACCAGCCTGGCCCTCAACAAATCTGAAAATTCTGACAAGGGCGTGGAGGTTGCCTTCCTCG  
GCACTCGCACGGGCTCTCCAGAATCAACCTGTTTGTGCGGGGCTGAGCAGCTCACCAATCAGGACT  
15 TCCTGAAAGCTGGCGACAAGGAGAACATTTTTAACGCAGACCATTTCCTCTCTGGTACCGAAGAG  
CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTCAGCACTGGACCAGTCAATAAAA  
GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGGAAATCTCCTGTGAGTGCAG  
CTGTAGGCATTTCAGATGAACTTGAATTTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG  
CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTTTTGGTGAGATCG  
20 AGGGAGCTGTGATGAACAAATTGCTAACAAATGGGCTCCTTTAAAAGAATTACCCTTTATGACTACC  
AAGCCATGTGTAGAGCCAACAAGGAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCCAGAAATT  
GAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTTCGTCTCTGAGCGCACCATCAAGGA  
GACTACAGGGAATATTGCTTGTGAAGACTGCTCCAAGTCCTTTGTCATCCAGCAAATCCCAAGCAG  
CAACCTGTTTCATGGTGGTGGTGGACAGCAACTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGC  
25 ACCCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGTCTAAAGGCCCAGAAGATCAGAAG  
GCGCCCAAGATCTTGTGATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAG  
TCTCCAAGCCCAGACAGTCCCTCCTTCTGCTCCCTCTGCTTTTGATGCTCTTCTCAAGGTGACACTG  
ACTGAGATGTTCTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGATAAACTGTGAAC  
CAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAA  
30 ACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATCTTTTTACTTTGC  
CAGTCATGCAAATGTGAGTTTGCCACATGATAATCACCCCTTCATCAGAAATGGGACCGCAAGTGGT  
AGGCAGTGTCCCTTCTGCTTGAACCTATTGAAACCAATTTAAAACCTGTGTACTTTTTTAAATAAAG  
TATATTAAAATCATAAAAA

(2) INFORMATION FOR SEQ ID NO: 45:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: adapter primer

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

CCATCCTAATACGACTCACTATAGGGC

(2) INFORMATION FOR SEQ ID NO: 46:

5 (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
10 (D) OTHER INFORMATION: adapter primer  
(iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:  
15 ACTCACTATAGGGCTCGAGCGGC  
(2) INFORMATION FOR SEQ ID NO: 47:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
20 (ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
(A) NAME/KEY: Coding Sequence  
(B) LOCATION:  
(D) OTHER INFORMATION: probe for Northern blot  
25 (iii) MOLECULE TYPE: cDNA  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:  
30 CTGTGAGTGCAGCTGTAGGCATTGAGATGAACTTTTCCAAAGGAAGTTCTGGACTGCCA  
GCAGACAGTGTGCTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTT  
TTGGTGAGATCGAGGGAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAAGAATTACCC  
35 TTTATGACTACCAAGCCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGG  
ATCCCAGAAAATTGAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTCGTCTCTGAGCG  
CACCATCAAGGAGACTACAGGGAATATTGCTTGTGAAGACTGCTCCAAGTCCTTTGTCATCCAGCA  
AATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGGACAGCAACTGCCTCTGTGAATCTGTGGCCCC  
CATCACCATGGCACCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGCTTAAAGGCCCA  
40 GAAGATCAGAAGGCGCCAGAAATCTTGTGATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGG  
GGGTGCGCCGAGTCTCCAAGCCCAGACAGTCTCCTTCTGCTCCCTCTGCTTTTGATGCTCTTCTC  
AAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGA  
TAACTGTGAACCAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCA  
TCATGATTTTAAACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATC  
45 TTTTACTTTGCCAGTCATGCAATGTGAGTTTGCCACATGATAATCACCCCTTCATCAGAAATGGG  
ACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAAACCTATTGAAACCAATTAAAACTGTGTACT  
TTTTAAATAAAGTATATTAAATCATAAAAAAAAAAAAAAAAAAAAAA  
50 (2) INFORMATION FOR SEQ ID NO: 48:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH:  
(B) TYPE:  
(C) STRANDEDNESS: single

09787657-03001

5 (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
(ix) FEATURE:  
    (A) NAME/KEY: Coding Sequence  
    (B) LOCATION:  
    (D) OTHER INFORMATION: Edge 5' primer  
(iii) MOLECULE TYPE: cDNA  
  
10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:  
CTAGAGGCCATGATCCGCTTCCTCAC  
  
(2) INFORMATION FOR SEQ ID NO: 49:  
  
15 (i) SEQUENCE CHARACTERISTICS:  
    (A) LENGTH:  
    (B) TYPE:  
    (C) STRANDEDNESS: single  
    (D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: cDNA  
20 (ix) FEATURE:  
    (A) NAME/KEY: Coding Sequence  
    (B) LOCATION:  
    (D) OTHER INFORMATION: Edge 3' primer  
(iii) MOLECULE TYPE: cDNA  
  
25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:  
GCCCACGAACAAGCTGCTTC

T00220" 4992860  
09787657-032001